

# United States Patent and Trademark Office

Onited	States I atent and Trademark Office
Address	COMMISSIONER OF PATENTS AND TRADEMARKS
	Washington, D.C., 20231
	www uspto gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
09/759,899	01/12/2001	I. T. Chen	JCTWP020A	2833	
75	90 12/12/2002				
J C Patents Incorporated			EXAMINER		
4 Venture Suite 250 Irvine, CA 92618			AHMED, S	SHAMIM	
			ART UNIT	PAPER NUMBER	
			1765		
			DATE MAILED: 12/12/2002	$\checkmark$	

Please find below and/or attached an Office communication concerning this application or proceeding.

•						4	
		Applicatio	on No.	Applicant(s)		(	
Office Action Summary		09/759,89	9	CHEN ET AL.	7		
		Examiner		Art Unit			
		Shamim A	Ahmed	1765			
	The MAILING DATE of this communica	tion appears on the	cover sheet with	the correspondence ad	dress		
Period fo		DEDLY IC CET TO	O EVRIDE A MON	NTU(C) EDOM			
THE I - Externanter - If the - If NC - Failu - Any r	ORTENED STATUTORY PERIOD FOR MAILING DATE OF THIS COMMUNICA sions of time may be available under the provisions of 3 SIX (6) MONTHS from the mailing date of this communic period for reply specified above is less than thirty (30) diperiod for reply is specified above, the maximum statute ret or reply within the set or extended period for reply will, eply received by the Office later than three months after an adjustment. See 37 CFR 1.704(b).	ATION.  OF CFR 1.136(a). In no every cation.  ays, a reply within the statuory period will apply and will by statute.	ent, however, may a repl utory minimum of thirty (3 II expire SIX (6) MONTH ication to become ABAN	y be timely filed 30) days will be considered timely S from the mailing date of this co DONED (35 U.S.C. § 133).	y. ommunication.		
1)⊡	Responsive to communication(s) filed	on <u>12 January 200</u>	<u>01</u> .				
2a) <u></u> □	This action is <b>FINAL</b> . 2b	)⊠ This action is	non-final.				
3)[	Since this application is in condition for	or allowance excep	t for formal matte	rs, prosecution as to th	e merits is		
Dispositi	closed in accordance with the practice on of Claims	e under <i>Ex parte Q</i>	uayle, 1935 C.D.	11, 453 O.G. 213.			
4)	Claim(s) $\underline{5}$ and $\underline{6}$ is/are pending in the	application.					
	4a) Of the above claim(s) is/are	withdrawn from cor	nsideration.				
5)	Claim(s) is/are allowed.						
6)[•	Claim(s) <u>5 and 6</u> is/are rejected.						
7)	Claim(s) is/are objected to.						
8)[	Claim(s) are subject to restriction	on and/or election re	equirement.				
• •	ion Papers						
,	The specification is objected to by the E						
10)[	The drawing(s) filed on 12 January 200						
	Applicant may not request that any object						
11)	The proposed drawing correction filed o			approved by the Examin	ier.		
	If approved, corrected drawings are requi		ffice action.				
•	The oath or declaration is objected to by	y the Examiner.					
-	under 35 U.S.C. §§ 119 and 120			(1)			
	Acknowledgment is made of a claim for	or foreign priority ur	nder 35 U.S.C. §	119(a)-(d) or (f).			
a)	☐ All b)☐ Some * c)☐ None of:						
	<ol> <li>Certified copies of the priority documents have been received.</li> </ol>						
	2. Certified copies of the priority documents have been received in Application No						
* ;	3. Copies of the certified copies of application from the Internat See the attached detailed Office action	ional Bureau (PCT	Rule 17.2(a)).		Stage		
	Acknowledgment is made of a claim for				al application)	,	
6	a)  The translation of the foreign langual  Acknowledgment is made of a claim for	uage provisional ap	oplication has bee	en received.			
Attachme			_				
1) Noti 2) Noti	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTC rmation Disclosure Statement(s) (PTO-1449) Pap			ummary (PTO-413) Paper No formal Patent Application (P			

Application/Control Number: 09/759,899 Page 2

Art Unit: 1765

#### **DETAILED ACTION**

### Specification

- 1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
- 2. The abstract of the disclosure is objected to because it is not the concise description of the invention. Correction is required. See MPEP § 608.01(b).

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngan et al (5,759,360) in view of Lee et al (5,705,432).

Application/Control Number: 09/759,899

Art Unit: 1765

As to claim 5, Ngan et al disclose a process for removing a layer of native silicon oxide using an ion bombardment method using an inert gas plasma, wherein the ions of the inert gas strike the surface of the wafer and sputter remove or etch the native silicon oxide (col.2, lines 51-56).

Ngan et al fail to teach that the native silicon oxide is a reaction product of silicon materials and oxygen plasma.

However, in a method of semiconductor processing, Lee et al teach that a native silicon oxide is formed on the surface of a silicon substrate, wherein the native oxide is formed on the silicon surface by exposing the surface to an oxygen plasma (col.3, lines 64-col.4, line2).

Therefore, it would have been obvious that Ngan et al's native oxide is formed between the reactions of silicon materials with oxygen plasma because the native oxide is nothing but a reaction product of silicon materials and oxygen plasma as taught by Lee et al.

As to claim 6, Ngan et al teach that the inert gas plasma includes argon gas plasma (col.2, lines 52-56).

#### Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Salimian et al (5,587,039) disclose a process for removing silicon oxide using inert gas plasma such as argon;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (703) 305-1929. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech can be reached on (703) 308-3836. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shamim Ahmed Examiner Art Unit 1765

SA December 9, 2002